STUDENT GUIDE

MISSION: MULTIMEDIA EXPLORATIONS

FUEL YOUR IMAGINATION! CHALLENGE

*The NASA Exploring Space Challenges invites you and your class to participate in the **Mission: Fuel Your Imagination! Challenge.** Based upon an activity created for a NASA DLN™ webcast event, students must write a short fictional story that incorporates real science, mathematics or engineering facts. All stories in your class must first go through a peer-judging event, and the winning story from your class (that could be you!) can be submitted to the **Fuel Your Imagination! Challenge**. Stories can be submitted under three categories: grades 3-4, 5-6 and 7-8. One winning story in each category will be selected as a national winner.*

On November 16, 2005, there will be three live webcasts of "Author Meets NASA Scientist: Turning Imagination into Reality." You and your classmates can watch author and artist Chris Van Allsburg meet with NASA scientist Jennifer Keys to share their thoughts about imagination in art and scientific exploration. Mr. Van Allsburg will also discuss his book, Zathura, and how he used creative writing to incorporate real science into his story.

So students, use your imagination and let NASA read about your vision for space exploration to the Moon, Mars and beyond! For further detailed information about this event and the activities associated with it, you may visit:

http://nasadln.nmsu.edu/dln/

*If you cannot watch the live event on November 16, but still would like to participate in this activity, please **have your teacher contact** the NASA Exploring Space Challenges Project Office (NASA-ESC@nasa.gov) to obtain a copy of the archived webcast. An archive will be available after November 28, 2006.*

RULES AND REGULATIONS

How do I qualify for this Challenge? Do I need to register for this? When are the stories due? All these questions and more are listed below with the **Mission: Fuel Your Imagination! Challenge** Rules and Regulations.

1. Only students in grades 3-8 may participate.

2. Registration opens Monday, November 21, 2005 and closes Monday, January 30, 2006.

3. Teachers must register his/her class by emailing **NASA-ESC@nasa.gov**. Include teacher name, school name, school address and email address.

4. Student participants are expected to watch the NASA DLN™ webcast event, "Author Meets NASA Scientist".

5. The teacher must lead a peer-judging event within the class to decide on one winning story to be submitted to the national challenge. Only one story per registered teacher will be permitted for submission.

6. Multiple entries from one school will be permitted if more than one class or teacher participates in this activity, but there is a maximum of two entries per grade category as long as each entry is from a different class or teacher.

7. Only that student whose name has been submitted through his/her teacher's registration will be allowed to submit a story to the national **Mission: FYI Challenge**.

8. Stories submitted to the national Challenge must be 1500 words or less and include at least three scientific facts.

9. Stories will be judged at the higher grade level of each judging category.

10. All local peer judging events must be arranged by the teacher/school and be completed prior to January 13, 2006.

11. Each winning student author from his/her class must upload own story[a] and complete evaluation questions to the **Mission: FYI Challenge** website by January 30, 2006.

12. Stories must be uploaded online as an Acrobat portable document (.pdf), Word document (.doc) or plain text (.txt). Paper copies will not be considered for judging. If the story contains original artwork, a copy can be mailed to the NASA ESC Project Office, but *artwork will not be judged as it is not a requirement for this Challenge*.

13. All entries are evaluated to the published rubrics and requirements for the **Mission: FYI Challenge**. Judges' decisions are final.

14. Only one story from each grade category (3-4, 5-6, 7-8) will be selected as a national winner. Each story will be published on-line and each student author will receive a personalized signed copy of *Zathura*.

15. An all-expenses paid trip to Space Camp will be awarded to one student for the best story nationwide. No family members or teachers will be included in this award.

[a] The NASA ESC Project Office understands that some students may have difficulty in uploading their own story, thus the teacher may email the story to the NASA Exploring Space Challenges Project Office if the student is unable to do so.

Mission: Fuel Your Imagination! Challenge Components

1. Digital Learning Network

A core component of this Challenge is based upon the DLN event, "Author meets NASA Scientist". This is a live webcast on November 16, 2005 out of NASA Langley Research Center. Artist and author Chris Van Allsburg will meet with NASA scientist, Jennifer Keys, to share their thoughts about imagination in art and scientific exploration. Mr. Van Allsburg will also discuss his book, *Zathura*, and how he used creative writing to incorporate real science into his story. Mr. Van Allsburg will also be fielding an assortment of questions from pres-selected students and teachers across the country. You can watch this live event on November 16, 2006 at:

10:00AM ET
1:00PM ET
3:30PM ET

The webcast can be linked from the Challenges website or directly through the DLN website:

http://nasadln.nmsu.edu/dln/content/catalog/details/?cid=441

It is not necessary to watch this event live if time is a constraint or if your school is finding out about this Challenge at a date after the live webcast. To take part in this Challenge, have your teacher contact the NASA Exploring Space Challenges Project Office (NASA-ESC@nasa.gov) and request a copy of the archived webcast. The archive should be available after November 28, 2005.

2. *Zathura* Activity

This Challenge is based upon an activity created by Houghton Mifflin (*Zathura* publishers) in cooperation with NASA Office of Education. First you must read the story, *Zathura*. If you don't have a copy of the book in your school library, try your local public library. Discuss the story components, such as the story's elements, climax, conflict and resolution, with your classmates:

- How would you describe Danny and Walter's relationship at the beginning of the book? If you have a brother or sister, can you relate to any of the things that happen between Walter and Danny?
- What is keeping Danny and Walter from getting along with each other?
- Danny helps Walter by tying him to the sofa when he is about to fly through the hole in the roof. Do you think Walter is used to being helped by his little brother? How do you think this incident starts to change Walter's perception of Danny?
- What happens between the time when Walter is swallowed by the black hole and the time when the boys find themselves wrestling on the grass in the park? How did they get there?
- How has the boys' relationship changed as a result of their experience?

The activity then asks you to identify three or four real science, math or engineering facts. Go to your library, use your textbooks, or research the internet for these items. You are then to use those facts and write your own fictional story. Use your list of facts to write about your vision for space exploration.

3. Evaluation Questions

An important part of each Challenge is an evaluation component. The NASA ESC Project Office has developed a set of questions for students participating in this Challenge. A student's story will not be judged on the answers to these evaluation questions. These questions are simply for information purposes only. Evaluation questions must be completed by January 30, 2006 or earlier.

4. Story Submission

So what exactly do you need to do to be considered for the **Mission: Fuel Your Imagination! Challenge**? Use the checklist below to help guide you:

___ Your story was selected by your fellow classmates as the best story in the class.

___ Your story is 1500 words or less.

___ Your story has at least THREE real science, math or engineering facts.

___ Your story includes a front page with your name, grade, school name and school address. (The first page will not be counted towards the 1500 word limit.)

___ Your story is in an electronic format: Acrobat portable document (.pdf), Word document (.doc) or plain text (.txt).

___ Did you do a spell-check on your story?

___ Your teacher registered you for this Challenge.

___ You answered the evaluation questions and your teacher emailed your story to NASA-ESC@nasa.gov.

*Remember, if your story contains original artwork, a copy can be mailed to the NASA ESC Project Office, but the text still must be uploaded through the Mission: FYI Challenge website. Artwork will not be considered in the judging process as it is not a requirement for this challenge, but will be included for publication if your story is selected by the judges.

JUDGING RUBRIC FOR
Mission: Fuel Your Imagination! Challenge

This chart is what will be used by the judges for the National Challenge. Each judge will be looking through your story for the elements listed below.

Category	4 points	3 points	2 points	1 point
Focus on Space Exploration	The entire story is related to the assigned topic and allows the reader to understand much more about the topic.	Most of the story is related to the assigned topic. The story wanders off at one point, but the reader can still learn something about the topic.	Some of the story is related to the assigned topic, but a reader does not learn much about the topic.	No attempt has been made to relate the story to the assigned topic.
Scientific Facts	At least three scientific facts were included in the story.	Only two scientific facts were included in the story.	Only one scientific fact was included in the story.	There were no scientific facts used in this story.
Accuracy of Facts	All facts presented in the story are accurate.	Almost all facts presented in the story are accurate.	About 50% of the facts presented in the story are accurate.	There are several factual errors in the story.
Organization	The story is very well organized. One idea or scene follows another in a logical sequence with clear transitions.	The story is pretty well organized. One idea or scene may seem out of place. Clear transitions are used.	The story is a little hard to follow. The transitions are sometimes not clear.	Ideas and scenes seem to be randomly arranged.
Character Conflict	It is very easy for the reader to understand the problem the main characters face and why is it a problem.	It is fairly easy for the reader to understand the problem the main characters face and why it is a problem.	It is fairly easy for the reader to understand the problem the main characters face but it is not clear why it is problem.	It is not clear what problem the main characters face.
Solution / Resolution	The solution to the character's problem is easy to understand and is logical. There are no loose ends.	The solution to the character's problem is easy to understand, and is somewhat logical.	The solution to the character's problem is a little hard to understand.	No solution is attempted or it is impossible to understand.

APPENDIX

Timeline of Events for Mission: Fuel Your Imagination! Challenge

Event	Date	Notes
Registration	November 21, 2005 – January 30, 2006	Teachers must first register prior to student registration
DLN Webcast Event	November 16, 2005	Three live events available online.
Local Challenges	Complete prior to January 13, 2006	Students must peer-review stories in class
Submission deadline	January 30, 2006	Winning student author from each class to submit story online.
National Challenge	February/March 2006	Judged by NASA representatives and educators

Useful websites

The sites listed below are a sampling of existing NASA and other related sites on an assortment of topics. NASA does not endorse the non-NASA sites; they are offered merely as examples.

http://www.nasa.gov
The NASA portal.

http://www.nasa.gov/audience/forkids/home/F_Vision_Slideshow_Text.html
An explanation of NASA's Vision for Space Exploration – the kid-friendly version.

http://ksnn.larc.nasa.gov/home.html
NASA's Kids Science Network site.

http://www1.edspace.nasa.gov/astroschool/survival/
NASA Educator Astronaut webpage that includes information all about NASA and astronauts.

http://marsprogram.jpl.nasa.gov
A great site to see the latest NASA science about Mars.

http://lunar.gsfc.nasa.gov/index.html
Another great site to explore the upcoming lunar mission.

http://www.houghtonmifflinbooks.com/features/zathura/
Private site sponsored by *Zathura* publishers, Houghton Mifflin.

http://www.learner.org/exhibits/literature/read/plot1.html
An excellent source to answer the question, "What makes a good short story?"